

Notice of Allowability

Application No.

09/671,856

Applicant(s)

KOMIYA ET AL.

Examiner

Art Unit

Kimnhung Nguyen

2677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE and Amendment filed on 8/4/05.
2. ☒ The allowed claim(s) is/are 1-6.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 8/9/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Examiner's Amendment

Authorization for this Examiner's Amendment was given in a telephone interview with Mr. Joel T. Charton on 9/6/05.

Amendments To The Claims 1, 2 and 4:

1. An active matrix type electroluminescence display device comprising:
a plurality of display pixels arranged in a matrix of rows and columns, each of said display pixels including an electroluminescence element to which one end of a capacitor for maintaining a voltage corresponding to a display signal is connected via a driver transistor; and
a plurality of capacitor lines extending in a row direction and connected to and shared by the other end of said capacitors of said display pixels; wherein
a constant voltage is supplied from both ends of said capacitor lines;
said capacitor is connected to a gate of the driver transistor, which drives the electroluminescence element.

2. An active matrix type electroluminescent display device comprising:
a plurality of display pixels, each including an electroluminescent element, arranged in a matrix of rows and columns, a first thin film transistor in which a display signal is applied to the drain and which is switched on and off in response to a select signal, a capacitor having one end connected to the source of the first thin film transistor and for maintaining a voltage

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corresponding to said display signal, and a second thin film transistor for driving said electroluminescence element based on said display signal;

a plurality of first capacitor lines, each extending in a row direction and connected to and shared by the other end of capacitors of said display pixels;

a second capacitor line connected to first ends of said plurality of first capacitor lines;

a third capacitor line connected to second ends of said plurality of first capacitor lines;

wherein

said second and third capacitor lines are connected to a common constant voltage source, and said constant voltage is supplied to said first ends and said second ends of said plurality of first capacitor lines through said second and third capacitor lines.

4. An active matrix type electroluminescence display device comprising:

a plurality of display pixels, each including an electroluminescence element, arranged in a matrix of rows and columns, a first thin film transistor in which a display signal is applied to the drain and which is switched on and off in response to a select signal, a capacitor having one end connected to the source of the first thin film transistor and for maintaining a voltage corresponding to said display signal, and a second thin film transistor for driving said electroluminescence element based on said display signal;

a plurality of first capacitor lines, each extending in a row direction and connected to and shared by the other end of capacitors of said display pixels;

a second capacitor line connected to first ends of said plurality of first capacitor lines;

a third capacitor line connected to second ends of said plurality of first capacitor lines;
and

wherein a constant voltage is supplied to said first ends and second ends or said plurality of first capacitor lines through said second and third capacitor lines.

Reasons For Allowance

The following is an examiner's statement of reasons for allowance: The present invention is directed to an active matrix type electroluminescence display device comprising a plurality pixels, each including an electroluminescence element arranged in a matrix of rows and column, a first thin film transistor in which a display signal is applied to the drain and which is switched on and off in response to select signal, a capacitance having one end connected to the source of the first thin film transistor and for maintaining a voltage corresponding to the display signal and a second thin film transistor for driving the electroluminescence element based on the display signal; and a capacitance lines extending each row and connected to and shared by the other end of the capacitance of the display pixels; and a second capacitance line connected to first ends of said plurality of first capacitance lines. The closest prior art, Sato (5,235,253) discloses a similar system an active matrix type electroluminescence, he also discloses a first thin film transistor in which a display signal is applied to the drain and which is switched on and off in response to select signal, a capacitance having one end connected to the source of the first thin film transistor and for maintaining a voltage corresponding to the display signal and a second thin film transistor for driving the electroluminescence element based on the display signal; and a capacitance lines extending each row and connected to and shared by the other end of the

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capacitance of the display pixels; and a second capacitance line connected to first ends of the plurality of first capacitor lines. However, he fail to teach a constant voltage is applied from both ends of the capacitor lines, the capacitor is connected to a gate of the driver transistor, which drives the electroluminescent element as claim 1; or a second capacitor line connected to first ends of said plurality of first capacitor lines, wherein the second and third capacitor lines are connected to a common constant voltage source, and the constant voltage is supplied to the first ends and said second ends of the plurality of first capacitor lines through the second and third capacitor lines as claim 2; or a third capacitor line connected to second ends of the plurality of first capacitor lines; and wherein a constant voltage is supplied to the first ends and second ends or the plurality of first capacitor lines through the second and third capacitor lines as claim 4.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number is (571) 272-7698. The examiner can normally be reached on MON-FRI, FROM 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

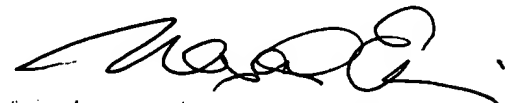
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kimnhung Nguyen
September 10, 2005

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